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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/553,959	10/19/2005	Akihiko Hiratsuka	740250-894	9879
78198	7590	03/03/2009		
Studebaker & Brackett PC 1890 Preston White Drive Suite 105 Reston, VA 20191			EXAMINER FOX, JOHN C	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 03/03/2009	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

**Office Action Summary****Application No.**

10/553,959

**Applicant(s)**

HIRATSUKA ET AL.

**Examiner**

John Fox

**Art Unit**

3753

**Period for Reply** -- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 January 2009.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-3 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-946)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
- 4) ☐ Interview Summary (PTO-413)
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: \_\_\_\_\_
- Paper No(s)/Mail Date \_\_\_\_\_

A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on January 27, 2009 has been entered.

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 1-3 are rejected under 35 U.S.C. 102(b) as being anticipated by Minami et al.

Minami et al teach a semiconductor manufacturing system where sheet 13 of Minami et al can be an aluminum plate of high thermal conductivity, which would be a direct heating element, and heaters 12 would inherently provide radiant heating to the interior of the main body. The portion of the piping, unlabelled, between the body 2 and the couplings 6, at the intersection of the piping and the body 2, is read as a joint and the couplings 6 are read as pipes.

Claims 1-3 are, in the alternative, rejected under 35 U.S.C. 103(a) as being unpatentable over Minami et al in view of Yamaji et al.

Minami et al teach a semiconductor manufacturing system where sheet 13 of Minami et al can be an aluminum plate of high thermal conductivity, which would be a direct heating element, and heaters 12 would inherently provide radiant heating to the interior of the main body. However, the main body does not cover the couplings 6.

Yamaji et al show another semiconductor manufacturing fluid system with heat tape 11 extending the entire length of the device, including the pipe end joint shown in Figure 1 and Yamaji et al is read as including the pipes which would conduct fluid to the gas stick. Both references teach the purpose of the heaters as for preventing the reliquification of the gas being transported, and it is believed that it is readily evident that the presence of a cold section is contrary to such purpose. It would have been obvious for one of ordinary skill in the art at the time the invention was made to have made the main body and the heating elements of Minami et al of sufficient length to cover the entire device, such as the joints, as taught by Yamaji et al to more effectively prevent reliquification of the gas therein by eliminating cold sections.

Applicant's arguments have been fully considered but they are not persuasive. The purpose of Teflon coating 12a and sheet 13 is to provide double insulation for safety, see column 4, lines 30-34, which suggests electrical insulation. In any case, the clear purpose of providing heaters 12 is to heat the valve or controller, and the aluminum sheet embodiment is stated to transfer heat more efficiently and directly to the valve or controller. As to the radiant heating feature, heater 12 of Minami et al extends past the end of the body of the valve or controller as does the sheet 13, and is spaced from the pipes conducting fluid to the valve. Thus, radiant heat transfer from the sheet 13 to the pipe is necessarily present in Minami et al, which is the necessary and sufficient condition for inherency. This structure corresponds identically to the heater 16, stainless panel forming the radiant section 24 and the pipes of the instant application.

As to the cushion member 17 and holding members 14, 15, 16, they neither add to nor subtract from the teaching of the elements which meet the claims.

Applicant argues that the direct heating section of Minami et al is configured to heat the side heaters and not the valve body. This argument is not agreed with because it is contradictory to the explicit disclosure of Minami et al, notwithstanding the fact that it makes little sense. Applicant argues that members 17, 14, and 15 of Minami et al reduces the heater's effect on the body. However, Applicant appears to be confusing the valve body with the housing body of the heating unit. Since the members 17, 14, and 15 are outside the heaters 12 and the heaters 12 are biased by the cushion 17 into direct contact with the valve body 2, such argument is off point and wholly unpersuasive of error in the rejection.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to John Fox whose telephone number is 571-272-4912. The examiner can normally be reached on Monday-Saturday from 10am-6pm (Hoteling Program).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gregory Huson can be reached on 571-272-4887. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/John Fox/  
Primary Examiner  
Art Unit 3753